



Launch Mission Execution Forecast



Mission: Falcon 9 Starlink 4-15

Issued: 13 May 2022 / 0830L (1230Z)

Valid: 14 May 2022 / 1628 – 1649L (2028 – 2049Z)

Forecast Discussion: A weak trough of low pressure will persist just off the southeast coast through this weekend. Moisture continues to be on the increase over the Florida peninsula the past couple of days. This increasing moisture and the afternoon sea breeze will bring a chance of showers and possibly a thunderstorm or two over inland portions eastern Florida. There is some possibility that some of the anvils associated with some of this convection could affect the Spaceport during the count. The primary concern for launch day is the Cumulus Cloud Rule and the Anvil Cloud Rules.

In the event of a 24-hour delay, weather conditions are expected to remain largely unchanged. The weak trough over the water will linger and convection should once again develop along the sea breeze. The primary concern for the backup day will be the Cumulus Cloud Rule and the Anvil Cloud Rules.

Probability of Violating Weather Constraints ¹																									
Launch Day	20% Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules																								
	Weather Conditions																								
	<table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Weather/Visibility: Isold Shwrs / 7 mi.</td> <td style="width: 10%;"></td> <td colspan="3" style="text-align: center;">Clouds</td> <td style="width: 30%;"></td> </tr> <tr> <td></td> <td style="text-align: center;">Type</td> <td style="text-align: center;">Coverage</td> <td style="text-align: center;">Base (ft)</td> <td style="text-align: center;">Tops (ft)</td> <td style="width: 30%;">Upper-Level Wind Shear: Low</td> </tr> <tr> <td>Temp/Humidity: 84°F / 57%</td> <td style="text-align: center;">Cumulus</td> <td style="text-align: center;">Scattered</td> <td style="text-align: center;">2,500</td> <td style="text-align: center;">40,000</td> <td>Booster Recovery Weather: Low</td> </tr> <tr> <td>Liftoff Winds (200'): 110° 7 - 12 mph</td> <td></td> <td></td> <td></td> <td></td> <td>Solar Activity: Low</td> </tr> </table>	Weather/Visibility: Isold Shwrs / 7 mi.		Clouds					Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low	Temp/Humidity: 84°F / 57%	Cumulus	Scattered	2,500	40,000	Booster Recovery Weather: Low	Liftoff Winds (200'): 110° 7 - 12 mph					Solar Activity: Low
	Weather/Visibility: Isold Shwrs / 7 mi.		Clouds																						
	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low																				
Temp/Humidity: 84°F / 57%	Cumulus	Scattered	2,500	40,000	Booster Recovery Weather: Low																				
Liftoff Winds (200'): 110° 7 - 12 mph					Solar Activity: Low																				
Additional Risk Criteria ²																									
Probability of Violating Weather Constraints																									
24-Hour Delay	20% Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules																								
	Weather Conditions																								
	<table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Weather/Visibility: Isold Shwrs / 7 mi.</td> <td style="width: 10%;"></td> <td colspan="3" style="text-align: center;">Clouds</td> <td style="width: 30%;"></td> </tr> <tr> <td></td> <td style="text-align: center;">Type</td> <td style="text-align: center;">Coverage</td> <td style="text-align: center;">Base (ft)</td> <td style="text-align: center;">Tops (ft)</td> <td style="width: 30%;">Upper-Level Wind Shear: Low</td> </tr> <tr> <td>Temp/Humidity: 84°F / 59%</td> <td style="text-align: center;">Cumulus</td> <td style="text-align: center;">Scattered</td> <td style="text-align: center;">2,500</td> <td style="text-align: center;">40,000</td> <td>Booster Recovery Weather: Low</td> </tr> <tr> <td>Liftoff Winds (200'): 100° 10 - 15 mph</td> <td></td> <td></td> <td></td> <td></td> <td>Solar Activity: Low</td> </tr> </table>	Weather/Visibility: Isold Shwrs / 7 mi.		Clouds					Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low	Temp/Humidity: 84°F / 59%	Cumulus	Scattered	2,500	40,000	Booster Recovery Weather: Low	Liftoff Winds (200'): 100° 10 - 15 mph					Solar Activity: Low
	Weather/Visibility: Isold Shwrs / 7 mi.		Clouds																						
	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low																				
Temp/Humidity: 84°F / 59%	Cumulus	Scattered	2,500	40,000	Booster Recovery Weather: Low																				
Liftoff Winds (200'): 100° 10 - 15 mph					Solar Activity: Low																				
Additional Risk Criteria																									
Notes	<ol style="list-style-type: none"> The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor. 																								
	See https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information																								
Next Forecast Will Be Issued	AS REQUIRED																								